

*In claim 1*, replace lines 1-6 with:

--A probe cleaning apparatus for cleaning the end portion of a probe used for testing a semiconductor wafer, comprising:

- (i) an abrasive substrate layer comprising a material for loosening debris on the end portion of a probe; and
- (ii) a tacky gel layer, wherein said tacky gel layer is in contact with a surface of the abrasive substrate layer; said tacky gel layer comprising: -- .

*In claim 1* after Formula II,

Replace: "wherein,  $R_1'$ ,  $R_2'$ ,  $R_3'$ ,  $R_4'$ ,  $R_5'$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present; or"

With: --wherein,  $R_1'$ ,  $R_2'$ ,  $R_3'$ ,  $R_4'$ ,  $R_5'$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present in Formula II and that Formula II has at least two Si-H bonds; or -- .

*In claim 1* after Formula III,

Replace: " $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are independently selected from: hydrogen,  $C_{1-20}$  alkyl,  $C_{1-20}$  haloalkyl, phenyl or  $C_{1-10}$  alkylphenyl;"

With: -- $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are independently selected from: hydrogen,  $C_{1-20}$  alkyl,  $C_{1-20}$  haloalkyl, phenyl or  $C_{1-10}$  alkylphenyl, with the proviso that Formula III has at least two Si-H bonds; -- .

2. (Amended) The probe cleaning apparatus according to claim 1, wherein said abrasive substrate layer is comprised of a material selected from the group consisting of a transition metal, metal alloy, composite compound, and naturally occurring material.

3. (Amended) The probe cleaning apparatus according to claim 2, wherein said material is in the form of a powder, particle, granule or crystal.

4. (Amended) The probe cleaning apparatus according to claim 3, wherein said abrasive substrate layer is homogeneous or heterogeneous.

5. (Amended) The probe cleaning apparatus according to claim 2, wherein said abrasive substrate layer is comprised of a transition metal selected from the group consisting of copper, nickel, palladium, tungsten, rhenium, rhodium, and cobalt.

6. (Amended) The probe cleaning apparatus according to claim 2, wherein said abrasive substrate layer is comprised of a metal alloy selected from the group consisting of palladium/cobalt, molybdenum/chromium, and titanium/tungsten.

7. (Amended) The probe cleaning apparatus according to claim 2, wherein said abrasive substrate layer is comprised of a composite compound selected from the group consisting of tungsten carbide, silicon carbide, silicon nitride, silicon oxide, aluminum nitride, chrome oxide, and titanium nitride.

8. (Amended) The probe cleaning apparatus according to claim 2, wherein said abrasive substrate layer is comprised of a naturally occurring material selected from the group consisting of silica, alumina, diamond, and diamond-like carbon.

9. (Amended) The probe cleaning apparatus according to claim 2, wherein said abrasive substrate layer comprises surface abrasions obtained from one or more selected from the group consisting of surface roughening, plating up, etching, stamping, cutting into the substrate surface, molding, and sputtering.

*In claim 10*, replace line 1-6 with:

--A probe cleaning apparatus for cleaning the end portion of a probe used for testing a semiconductor wafer, comprising:

- (i) an abrasive substrate layer; and
- (ii) a tacky gel layer, wherein said tacky gel layer is in contact with a surface of the abrasive substrate layer, said tacky gel layer comprising: -- .

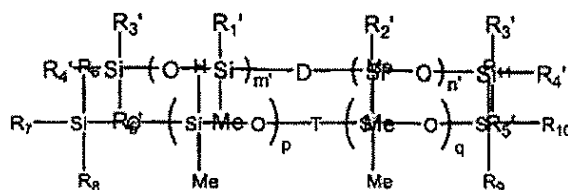
*In claim 10*, after Formula II,

Replace: "wherein,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present; or"

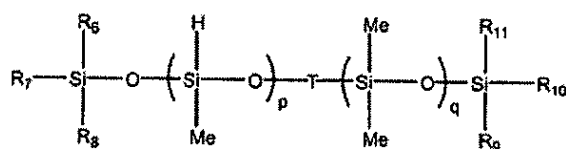
With: --wherein,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present in Formula II and that Formula II has at least two Si-H bonds; or -- .

*In claim 10,*

Replace (Formula III):



With (Formula III):



*In claim 10* after Formula III,

Replace: "R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, and R<sub>11</sub> are independently selected from:

hydrogen, C<sub>1-20</sub> alkyl, C<sub>1-20</sub> haloalkyl, phenyl or C<sub>1-10</sub> alkylphenyl;"

With: --R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, and R<sub>11</sub> are independently selected from: hydrogen,

C<sub>1-20</sub> alkyl, C<sub>1-20</sub> haloalkyl, phenyl or C<sub>1-10</sub> alkylphenyl, with the proviso that Formula III

has at least two Si-H bonds; -- .

11. (Amended) The probe cleaning apparatus according to claim 10, wherein said alternating regions of the tacky gel layer rest on a surface of said abrasive substrate layer, or said alternating regions of the tacky gel layer are partially embedded in said abrasive substrate layer.

*In claim 12*, after Formula II,

Replace: "wherein,  $R_1'$ ,  $R_2'$ ,  $R_3'$ ,  $R_4'$ ,  $R_5'$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present; or"

With: --wherein,  $R_1'$ ,  $R_2'$ ,  $R_3'$ ,  $R_4'$ ,  $R_5'$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present in Formula II and that Formula II has at least two Si-H bonds; or -- .

*In claim 12*, after Formula III,

Replace: " $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are independently selected from: hydrogen,  $C_{1-20}$  alkyl,  $C_{1-20}$  haloalkyl, phenyl or  $C_{1-10}$  alkylphenyl;"

With: -- $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are independently selected from: hydrogen,  $C_{1-20}$  alkyl,  $C_{1-20}$  haloalkyl, phenyl or  $C_{1-10}$  alkylphenyl, with the proviso that Formula III has at least two Si-H bonds; -- .

*In claim 29*, replace lines 1-6 with:

--A probe cleaning apparatus for cleaning the end portion of a probe used for testing a semiconductor wafer, comprising:

(i) an abrasive substrate layer comprising a material for loosening debris on the end portion of a probe; and

(ii) a tacky gel layer, wherein said tacky gel layer is in contact with a surface of the abrasive substrate layer; said tacky gel layer comprising: -- .

30. (Amended) The probe cleaning apparatus according to claim 29, wherein said abrasive substrate layer is comprised of a material selected from the group consisting of a transition metal, metal alloy, composite compound, and naturally occurring material.
31. (Amended) The probe cleaning apparatus according to claim 30, wherein said material is in the form of a powder, particle, granule or crystal.
32. (Amended) The probe cleaning apparatus according to claim 31, wherein said abrasive substrate layer is homogeneous or heterogeneous.
33. (Amended) The probe cleaning apparatus according to claim 30, wherein said abrasive substrate layer is comprised of a transition metal selected from the group consisting of copper, nickel, palladium, tungsten, rhenium, rhodium, and cobalt.
34. (Amended) The probe cleaning apparatus according to claim 30, wherein said abrasive substrate layer is comprised of a metal alloy selected from the group consisting of palladium/cobalt, molybdenum/chromium, and titanium/tungsten.
35. (Amended) The probe cleaning apparatus according to claim 30, wherein said abrasive substrate layer is comprised of a composite compound selected from the group consisting of tungsten carbide, silicon carbide, silicon nitride, silicon oxide, aluminum nitride, chrome oxide, and titanium nitride.

36. (Amended) The probe cleaning apparatus according to claim 30, wherein said abrasive substrate layer is comprised of a naturally occurring material selected from the group consisting of silica, alumina, diamond, and diamond-like carbon.

37. (Amended) The probe cleaning apparatus according to claim 29, wherein said abrasive substrate layer comprises surface abrasions obtained from one or more selected from the group consisting of surface roughening, plating up, etching, stamping, cutting into the substrate surface, molding, and sputtering.

*In claim 38*, replace line 1-6 with:

--A probe cleaning apparatus for cleaning the end portion of a probe used for testing a semiconductor wafer, comprising:

- (i) an abrasive substrate layer; and
- (ii) a tacky gel layer, wherein said tacky gel layer is in contact with a surface of the abrasive substrate layer, said tacky gel layer comprising: -- .

39. (Amended) The probe cleaning apparatus according to claim 10, wherein said alternating regions of the tacky gel layer rest on a surface of said abrasive substrate layer, or said alternating regions of the tacky gel layer are partially embedded in said abrasive substrate layer.

**In claim 47**, replace line 1-6 with:

--A probe cleaning apparatus for cleaning the end portion of a probe used for testing a semiconductor wafer, comprising:

- (i) an abrasive substrate layer; and
- (ii) a tacky gel layer, wherein said tacky gel layer is in contact with a surface of the abrasive substrate layer, said tacky gel layer comprising: -- .

**In claim 47**, after Formula II,

Replace: "wherein,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present; or"

With: --wherein,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present in Formula II and that Formula II has at least two Si-H bonds; or -- .

**In claim 47**, after Formula III,

Replace: " $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are independently selected from: hydrogen,  $C_{1-20}$  alkyl,  $C_{1-20}$  haloalkyl, phenyl or  $C_{1-10}$  alkylphenyl;"

With: -- $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are independently selected from: hydrogen,  $C_{1-20}$  alkyl,  $C_{1-20}$  haloalkyl, phenyl or  $C_{1-10}$  alkylphenyl, with the proviso that Formula III has at least two Si-H bonds; -- .



**In claim 48**, replace line 1-6 with:

--A probe cleaning apparatus for cleaning the end portion of a probe used for testing a semiconductor wafer, comprising:

- (i) an abrasive substrate layer; and
- (ii) a tacky gel layer, wherein said tacky gel layer is in contact with a surface of the abrasive substrate layer, said tacky gel layer comprising: -- .

**In claim 48**, after Formula II,

Replace: "wherein,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present; or"

With: --wherein,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present in Formula II and that Formula II has at least two Si-H bonds; or -- .

**In claim 48**, after Formula III,

Replace: " $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are independently selected from: hydrogen,  $C_{1-20}$  alkyl,  $C_{1-20}$  haloalkyl, phenyl or  $C_{1-10}$  alkylphenyl;"

With: -- $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are independently selected from: hydrogen,  $C_{1-20}$  alkyl,  $C_{1-20}$  haloalkyl, phenyl or  $C_{1-10}$  alkylphenyl, with the proviso that Formula III has at least two Si-H bonds; -- .

**In claim 55**, replace line 1-6 with:

--A probe cleaning apparatus for cleaning the end portion of a probe used for testing a semiconductor wafer, comprising:

- (i) an abrasive substrate layer; and
- (ii) a tacky gel layer, wherein said tacky gel layer is in contact with a surface of the abrasive substrate layer, said tacky gel layer comprising: -- .

**In claim 55**, after Formula II,

Replace: "wherein,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present; or"

With: --wherein,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present in Formula II and that Formula II has at least two Si-H bonds; or -- .

**In claim 55**, after Formula III,

Replace: " $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are independently selected from: hydrogen,  $C_{1-20}$  alkyl,  $C_{1-20}$  haloalkyl, phenyl or  $C_{1-10}$  alkylphenyl;"

With: -- $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ ,  $R_{10}$ , and  $R_{11}$  are independently selected from: hydrogen,  $C_{1-20}$  alkyl,  $C_{1-20}$  haloalkyl, phenyl or  $C_{1-10}$  alkylphenyl, with the proviso that Formula III has at least two Si-H bonds; -- .

*In claim 60*, replace line 1-6 with:

--A probe cleaning apparatus for cleaning the end portion of a probe used for testing a semiconductor wafer, comprising:

- (i) an abrasive substrate layer; and
- (ii) a tacky gel layer, wherein said tacky gel layer is in contact with a surface of the abrasive substrate layer, said tacky gel layer comprising: -- .

*In claim 61*, replace line 1-6 with:

--A probe cleaning apparatus for cleaning the end portion of a probe used for testing a semiconductor wafer, comprising:

- (i) an abrasive substrate layer; and
- (ii) a tacky gel layer, wherein said tacky gel layer is in contact with a surface of the abrasive substrate layer, said tacky gel layer comprising: -- .

*In claim 61*, after Formula II,

Replace: "wherein,  $R_1'$ ,  $R_2'$ ,  $R_3'$ ,  $R_4'$ ,  $R_5'$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present; or"

With: --wherein,  $R_1'$ ,  $R_2'$ ,  $R_3'$ ,  $R_4'$ ,  $R_5'$ ,  $m'$  and  $n'$  are independently selected from the groups defining  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $m$  and  $n$  above, with the proviso that vinyl is not present in Formula II and that Formula II has at least two Si-H bonds; or -- .

*In claim 61*, after Formula III,

Replace: "R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, and R<sub>11</sub> are independently selected from: hydrogen, C<sub>1-20</sub> alkyl, C<sub>1-20</sub> haloalkyl, phenyl or C<sub>1-10</sub> alkylphenyl;"

With: --R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, and R<sub>11</sub> are independently selected from: hydrogen, C<sub>1-20</sub> alkyl, C<sub>1-20</sub> haloalkyl, phenyl or C<sub>1-10</sub> alkylphenyl, with the proviso that Formula III has at least two Si-H bonds; -- .

*In claim 62*, replace line 1-6 with:

--A probe cleaning apparatus for cleaning the end portion of a probe used for testing a semiconductor wafer, comprising:

- (i) an abrasive substrate layer; and
- (ii) a tacky gel layer, wherein said tacky gel layer is in contact with a surface of the abrasive substrate layer, said tacky gel layer comprising: -- .

63. (Amended) The probe cleaning apparatus according to claim 1, wherein said abrasive substrate layer comprises abrasions, wherein at least two of said abrasions have a spacing between said at least two abrasions, wherein said spacing is smaller than the width of a probe tip.

64. (Amended) The probe cleaning apparatus according to claim 29, wherein said abrasive substrate layer comprises abrasions, wherein at least two of said abrasions have a spacing between said at least two abrasions, wherein said spacing is smaller than the width of a probe tip.